

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

David C. Brown, et al..

GROUP:

2874

SERIAL NO:

10/075,930

EXAMINER:

Sanghavi, H.

FILED:

February 13, 2002

FOR:

METHOD AND APPARATUS FOR BEAM DEFLECTION

Commissioner of Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT

In compliance with 37 C.F.R. §§1.56, 1.97, and 1.98, Applicant submits copies of the documents listed on the attached Form PTO-1449.

Applicant believes that no fee is required in connection with this submission, however, the Commissioner is authorized to charge Deposit Order Account No. 19-0079 for any fee that is required.

Respectfully submitted,

William E. Hilton

Registration No. 35,192

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225 Franklin Street, Suite 3300

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Telephone: (617) 426-9180

Extension 111

CERTIFICATE OF EXPRESS MAIL UNDER 37 C.F.R. §1.10

I hereby certify that this Information Disclosure Statement and the documents referred to as enclosed therein are being deposited with the United States Postal Service on June 30, 2004 in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EV383578574US addressed to the: Commissioner of Patents, P.O. Box 1450 Alexandria, VA 22313-

FORM PTO-1449 (Rev. 5/92)

GAUTHIER & CONNORS LLP 225 Franklin Street, Boston, MA 02

Telephone: (617) 426-9180

ATTORNEY DOCKET NO. 6689-C

SERIAL NO. 10/075,930

APPLICANT: David C. Brown, et al.

GROUP: 2874

INFORMATION DISCLOSURE JUN 3 0 2004 STATEMENT BY APPLICANT

FILING DATE: February 13, 2002

EXAMINER: Sanghavi, H.

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|--------------------|---------|------------------|-------|----------|-------------------------------|
| | AA | 4,717,223 | 01/1988 | Ishida et al. | | | |
| | AB | 4,523,800 | 06/1985 | Yamashita et al. | | | |
| | AC | 5,606,448 | 02/1997 | Suzuki et al. | | | |
| | AD | 6,377,293 | 04/2002 | Koh et al. | | | |
| | AE | 6,560,384 B1 | 05/2003 | Helkey et al. | | | |
| | AF | 6,549,691 | 04/2003 | Street et al. | | | |
| | AG | | | - | | | |
| | AH | | | | | | |
| | AI | | | | | | |

FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION YES NO |
|---------------------|----|--------------------|------|---------|-------|----------|-----------------------|
| | AJ | | | | | | |
| | AK | | | | | | |
| | AL | · | | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| EXAMINER INITIAL | | |
|---------------------|----|---|
| | AM | |
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Dana Casterlin

(Rev. 5/92)

FORM PTO-1449 SAMUELS, GAUTHIER & STEVENS LLP 225 Franklin Street, Boston, MA 02110 Telephone: (617) 426-9180

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE IF APPROPRIATE |
|---------------------|----|--------------------|------------|------------------|--------------|----------|-------------------------------|
| | AA | 4,365,863 | 12/28/1982 | Broussaud | | | |
| • | AB | 4,436,260 | 03/13/1984 | Donelan | | | 00- |
| | AC | 4,961,627 | 10/09/1990 | Swain et al. | | | |
| | AD | 5,185,675 | 02/09/1993 | Banks | | | |
| | AE | 5,208,880 | 05/04/1993 | Riza et al. | | | |
| | AF | 5,222,071 | 06/22/1993 | Pezeshki et al. | 1 | | |
| | AG | 5,223,971 | 06/29/1993 | Magel | | | |
| | AH | 5,233,673 | 08/03/1993 | Vali et al. | | <u> </u> | |
| | AI | 5,253,033 | 10/12/1993 | Lipchak et al. | | | |
| | AJ | 5,253,098 | 10/12/1993 | Hikita et al. | | | |
| | AK | 5,255,332 | 10/19/1993 | Welch et al. | | | |
| | AL | 5,268,974 | 12/07/1993 | Hikita et al. | | | |
| | AM | 5,345,521 | 09/06/1994 | McDonald et al. | | | |
| | AN | 5,373,393 | 12/13/1994 | DeJule et al. | | | |
| | AO | 5,682,449 | 10/28/1997 | Taira-Griffin | | | |
| | AP | 5,881,042 | 03/09/1999 | Knight | | | |
| | AQ | 5,927,798 | 07/13/1999 | Aksyuk et al. | | | |
| | AR | 5,943,159 | 08/24/1999 | Zhu | | | |
| | AS | 5,959,756 | 09/28/1999 | Keyworth et al. | | | |
| | AT | 5,963,682 | 10/05/1999 | Dorschner et al. | | | |
| | AU | 6,002,818 | 12/14/1999 | Fatehi et al. | | | |
| | AV | 6,008,834 | 12/28/1999 | Lewis et al. | | | · |
| | AW | 6,031,946 | 02/29/2000 | Bergmann et al. | | | |
| | AX | 6,044,056 | 03/28/2000 | Wilde et al. | | | |
| | AY | 6,072,624 | 06/06/2000 | Dixon et al. | | | 08/30/1993 |
| | AZ | 6,084,227 | 07/04/2000 | Rhoads | | | 07/30/1997 |

| | | | _ | | | | | |
|---------------------|-----------------------------|--|--|---|--|--|---|--|
| | AAA | 6,086,776 | 07/11/2000 | Maynard | | | 08/12/1996 | |
| | AAB | 6,097,860 | 08/01/2000 | Laor | | | 06/05/1998 | |
| IPE | AAC | 6,104,478 | 08/15/2000 | Giggenbach | | | 01/15/1998 | |
| 13 | AAD | 6,108,466 | 08/22/2000 | Aksyuk et al. | | | 09/17/1998 | |
| 3 0 2004 25) | AAE | 6,137,941 | 10/24/2000 | Robinson | | | 09/03/1998 | |
| PAOPASKI | AAF | 6,154,302 | 11/28/2000 | Yagi et al. | | | 11/13/1998 | |
| MADEM | AAG | 6,163,643 | 12/19/2000 | Bergmann et al. | | | 08/12/1998 | |
| | AAH | 6,173,105 | 01/09/2001 | Aksyuk et al. | | | 11/20/1998 | |
| | AAI | 6,201,644 | 03/13/2001 | Sakata et al. | | | 11/12/1998 | |
| | AAJ | 6,205,267 | 03/20/2001 | Aksyuk et al. | | | 11/20/1998 | |
| | AAK | 6,300,619 | 10/09/2001 | Aksyuk et al. | | | 12/21/1997 | |
| | <u> </u> | | FOREIGN | PATENT DOCUM | ENTS | | OPY | |
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION YES NO | |
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| | | | | | | | | |
| | | OTHER I | OCUMENTS | (Including Author, Title, D | ate, Pertinent P | ages, Etc.) | | |
| EXAMINER INITIAL | | | | | | | | |
| | AAL | Motamedi, M. Optical Proces 84-117 | Edward et al. "Gring II. The Inte | On-chip optical process rnational Society for Op | ing" Microel otical Enginee | ectronic Structi ring. Vol. 288 | ures and MEMS for 1, October 1996. pp. | |
| | | 04-11/ | Preliminary Data Sheet Day 2 "5200 Series 64x64 MEMS Ontical Switch Module" Agare Systems | | | | | |
| | AAM | Preliminary Da | | "5200-Series 64x64 M | IEMS Optica | Switch Modul | e" Agere Systems, | |
| | AAM | Preliminary Da Inc. July 2001. Ford, James E. | (4 pages) et al. "Microme | "5200-Series 64x64 M echanical Fiber-Optic A 6, No. 9. September 19 | ttenuator wit | h 3 μs Respons | | |
| | | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal | et al. "Micromondo Vol. 1 et al. "Silicon obility for Fiber-in | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Application | Attenuator with 1998. pp. 1663 Techanically-A | h 3 μs Response -1670 Active Anti-Ref | e" Journal of | |
| | AAN | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. Septemb Barber, B. et a. | et al. "Microme hnology. Vol. 1 , et al. "Silicon bility for Fiber-in per 1994. pp.11 l. "A Fiber Com | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Application | Attenuator with 1998. pp. 1663 [echanically-As" IEEE Phoable Optical A | h 3 µs Response -1670 Active Anti-Ref tonics Technolo | e" Journal of lection Layer with ogy Letters. Vol. 6, | |
| | AAN | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. Septemb Barber, B. et a Technology Le Reid, J.Robert Force Institute | et al. "Micromondhology. Vol. 1 , et al. "Silicondolity for Fiber-inder 1994. pp.11 . "A Fiber Conditters. Vol. 10, Note that al. "Arrays of Technology. | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Applications 19-1121 nectorized MEMS Varia No. 9. September 1998. f thermal micro-actuato The International Socie | Attenuator with 1998. pp. 1663 [echanically-As" IEEE Photo able Optical App. 1262-120 rs coupled to ety for Optica | h 3 µs Response- -1670 Active Anti-Ref tonics Technolo Attenuator" IEI 54 micro-optical c I Engineering, | e" Journal of lection Layer with ogy Letters. Vol. 6, EE Photonics omponents" Air Vol. 2865. pp. 74-82 | |
| | AAO | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. Septemb Barber, B. et a Technology Le Reid, J.Robert Force Institute Walker, J.A. et | et al. "Microme hnology. Vol. 1 , et al. "Silicon bility for Fiber-in per 1994. pp.11 . "A Fiber Come et al. "Arrays o of Technology. al. "Performan | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Applications 19-1121 nectorized MEMS Varia No. 9. September 1998. f thermal micro-actuator | Attenuator with 1998. pp. 1663 [echanically-As" IEEE Photo able Optical App. 1262-120 rs coupled to ety for Optical cations of a N | h 3 µs Response- -1670 Active Anti-Ref tonics Technolo Attenuator" IEI 64 micro-optical c 1 Engineering, MEMS Based O | e" Journal of lection Layer with ogy Letters. Vol. 6, EE Photonics omponents" Air Vol. 2865. pp. 74-82 ptical Modulator for | |
| | AAN AAO AAP AAQ | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. September Barber, B. et al Technology Lecton Reid, J.Robert Force Institute Walker, J.A. et WDM Fiber-Topp. 601-606 Lau, K.Y. "Millipp. 11-18 | et al. "Microme hnology. Vol. 1 ., et al. "Silicon bility for Fiber-in 1994. pp.11 l. "A Fiber Communiters. Vol. 10, Net al. "Arrays of Technology. al. "Performant o-The-Home Systems of the Word in the state of the systems of the word in the word in the systems of the word in | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Applications 19-1121 nectorized MEMS Varia No. 9. September 1998. If thermal micro-actuator The International Socie ce and Packaging Implistems" IEEE Electronic for Optical Beam Manip | Attenuator with 1998. pp. 1663 Techanically As" IEEE Phose able Optical Astronomy pp. 1262-120 rs coupled to ety for Optical cations of a New Components pulation" Circumstant | h 3 µs Response- -1670 Active Anti-Ref tonics Technologous Technologou | e" Journal of lection Layer with ogy Letters. Vol. 6, EE Photonics omponents" Air Vol. 2865. pp. 74-82 ptical Modulator for gy Conference. 1997. es, IEEE. July 1997. | |
| | AAN AAO AAP AAQ AAR | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. September Barber, B. et a Technology Le Reid, J.Robert Force Institute Walker, J.A. et WDM Fiber-Tropp. 601-606 Lau, K.Y. "Mpp. 11-18 Ford, James E. Structures and | et al. "Microme hnology. Vol. 1 ., et al. "Silicon bility for Fiber-in 1994. pp.11 l. "A Fiber Communiters. Vol. 10, Net al. "Arrays of Technology. al. "Performant o-The-Home Systems that word in the systems of the word in the systems of the word in the word | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Applications 19-1121 nectorized MEMS Varia No. 9. September 1998. If thermal micro-actuator The International Socie ce and Packaging Implistems" IEEE Electronic for Optical Beam Manip | Attenuator with 1998. pp. 1663 Techanically-As" IEEE Phose able Optical Astronomy 1262-120 rs coupled to ety for Optical cations of a Note Components pulation" Circulator Using a Note Component of the Indiana Component of | h 3 µs Response-1670 Active Anti-Reftonics Technology Attenuator" IEI 64 micro-optical cell Engineering, MEMS Based Of and Technology cuits and Device MARS Modulate | e" Journal of lection Layer with ogy Letters. Vol. 6, EE Photonics omponents" Air Vol. 2865. pp. 74-82 ptical Modulator for gy Conference. 1997. es, IEEE. July 1997. or" Microelectronic | |
| | AAP AAQ AAR AAS | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. Septembre Barber, B. et al Technology Le Reid, J.Robert Force Institute Walker, J.A. et WDM Fiber-Tropp. 601-606 Lau, K.Y. "Mingp. 11-18 Ford, James E. Structures and Vol. 3226, Sep Glockner, Steff Microelectroni | et al. "Microme hnology. Vol. 1 , et al. "Silicon bility for Fiber-in 1994. pp.11 . "A Fiber Communiters. Vol. 10, Note that al. "Arrays of Technology. al. "Performant on The-Home System 1997. pp. fan and Goring, of Structures and | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Applications 19-1121 nectorized MEMS Varia No. 9. September 1998. If thermal micro-actuator The International Socie ce and Packaging Implistems" IEEE Electronic for Optical Beam Manip oupled Variable Attenua cal Processing III. The 86-93 Rolf. "Multichannel Fil MEMS for Optical Pro | Attenuator with 1998. pp. 1663 [echanically-As" IEEE Phose able Optical Astronomy 1998. pp. 1262-120 [echanical for Optical Astronomy 1998] [echanical for Using a Matternational ber-Optic Switch 1998. pp. 1633 [echanical for Using a Matternational for Optic Switch 1998. pp. 1663 [echanical for Using a Matternational for Optic Switch 1998. pp. 1663 [echanical for Using a Matternational for Using a Matternational for Optic Switch 1998. pp. 1663 [echanical for Using a Matternational for Using a Matternati | h 3 µs Response-1670 Active Anti-Reftonics Technology Attenuator" IEI 64 micro-optical cell Engineering, MEMS Based Of and Technology cuits and Device MARS Modulate Society for Ope itches based on | e" Journal of lection Layer with ogy Letters. Vol. 6, EE Photonics omponents" Air Vol. 2865. pp. 74-82 ptical Modulator for gy Conference. 1997. es, IEEE. July 1997. or" Microelectronic tical Engineering. MOEM Systems" | |
| | AAN AAO AAP AAQ AAR AAS AAT | Preliminary Da Inc. July 2001. Ford, James E. Lightwave Tec Goossen, K.W Mbit/sec Capal No.9. Septembre Barber, B. et a Technology Le Reid, J.Robert Force Institute Walker, J.A. et WDM Fiber-Topp. 601-606 Lau, K.Y. "Mipp. 11-18 Ford, James E. Structures and Vol. 3226, Septembre Glockner, Steff Microelectroni Engineering. VCLEO '95. "S | et al. "Micromehnology. Vol. 1 , et al. "Silicon bility for Fiber-in 1994. pp.11 . "A Fiber Conters. Vol. 10, Net al. "Arrays of Technology. al. "Performant o-The-Home System 1997.pp. Tan and Goring, c Structures and Vol. 3226, September 1997.pp. | echanical Fiber-Optic A 6, No. 9. September 19 Modulator Based on M n-the-Loop Applications 19-1121 nectorized MEMS Varia No. 9. September 1998. If thermal micro-actuator The International Socie ce and Packaging Implistems" IEEE Electronic for Optical Beam Manip oupled Variable Attenua cal Processing III. The 86-93 Rolf. "Multichannel File | Attenuator with 1998. pp. 1663 [echanically-As" IEEE Phosable Optical Astronomy 1262-120 [echanical for Optical Cations of a National Components of the International International International International International III. The International III. Th | h 3 µs Response-1670 Active Anti-Reftonics Technology Attenuator" IEI 64 micro-optical cell Engineering, MEMS Based Of and Technology cuits and Device MARS Modulate Society for Ope itches based on the International sers and Electroses | e" Journal of lection Layer with ogy Letters. Vol. 6, EE Photonics omponents" Air Vol. 2865. pp. 74-82 ptical Modulator for gy Conference. 1997. es, IEEE. July 1997. or" Microelectronic tical Engineering. MOEM Systems" al Society for Optical | |

| | | January 1996. pp. 53-39 | | | |
|----------|-----|---|-----------------|--|--|
| | AAX | Goring, Rolf et al. "Miniaturized optical switches based on piezoelectrically driven microprism arrays" Miniaturized Systems with Micro-Optics and Micromechanics. The International Society for Optical Engineering. Vol 2687, January 1996. pp. 23-31 | | | |
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